



## Midas Digital Consoles

### Addendum B — G-II

to

PRO Series Live Audio Systems and XL8 Live Performance System  
Owner's Manuals

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# Chapter 1: Introducing Generation-II

This addendum is intended to provide users with information and operating instructions applicable to the enhancements and new features incorporated in the new Generation-II (G-II) software for Midas Digital Consoles (PRO1, PRO2, PRO2C, PRO3, PRO6, PRO9 and XL8).

**Note:** As the PRO1 was initially introduced to the market as a fully G-II-equipped system, it may only be mentioned briefly in this addendum.

**Note:** The PROb consoles are not affected by G-II.

**Note:** Throughout this addendum the PRO3, PRO6 and PRO9 are collectively referred to as PRO Series.

## Which manuals are affected by G-II?

To help you keep track of the latest versions of the Midas Digital Console Owner's Manuals, refer to the following table.

**Table 1: Addendum history and latest manual versions for Midas Digital Consoles**

<i>Midas Digital Console Owner's Manual</i>	<i>Addendum A - PROb Live Audio System For The PRO Series (Part Number DOC07-PROBADDENDUM, Issue A, Dec. 2010)</i>	<i>Addendum B — G-II Software (This Document)</i>
PRO1 (part number DOC02-DL1SERIES, Issue A, Jun. 2012)	N/A	Yes
PRO2 (part number DOC02-DL2SERIES, Issue A, Oct. 2012)	N/A	Yes
PRO3, PRO6* and PRO9 (part number DOC02-PROSERIES, Issue A, Sep. 2010)	Yes	Yes
XL8 (part number DOC02-XL8, Issue B, Apr. 2010)	N/A	Yes

\* The owner's manual for the PRO6 (part number DOC02-DL3) reached issue C (June 2010) before it was superseded by the PRO Series Owner's Manual, which includes the PRO3 and PRO9.

## About G-II software

The G-II software contains the following enhancements and new features:

<b>Feature</b>	<b>PRO1</b>	<b>PRO2 and PRO2C</b>	<b>PRO Series (PRO3, PRO6 and PRO9)</b>	<b>XL8</b>
Eight internal effects	Existing	New (page B-3)	New (page B-3)	New (page B-3)
Dynamic EQ internal effect	Existing	Existing	New (page B-23)	New (page B-23)
<b>Hardware Safe</b> screen	Existing	Existing	New (page B-29)	New (page B-29)
<b>Diagnostics</b> screen	Existing	New (page B-30)	Existing	Existing
Advanced navigation	Existing	Existing	New (page B-19)	New (page B-19)
Select follows solo (independent of fader flip)	Existing	New (page B-33)	New (page B-33)	New (page B-33)
Solo and mirror link pan added to stereo linking	Existing	New (page B-33)	New (page B-33)	New (page B-33)
<b>Preferences</b> screen updated	Existing	Existing	New (page B-34)	New (page B-34)
Polarity reverse switch added to output channels	Existing	New (page B-36)	New (page B-36)	New (page B-36)
Send pan follows channel pan	Existing	New (page B-37)	New (page B-37)	New (page B-37)
Output channel names on GEQs	Existing	New (page B-38)	New (page B-38)	New (page B-38)
New automation scene and show warnings	Existing	New (page B-38)	New (page B-38)	New (page B-38)
Show timestamp in file list	Existing	New (page B-39)	New (page B-39)	New (page B-39)
Parameter values displayed on GUI and LCD select buttons	Existing	Existing	New (page B-41)	New (page B-41)
Wireless remote control via iPad	Existing	New (page B-39)	New (page B-39)	New (page B-39)
Stereo GEQ effect	New (page B-27)	New (page B-27)	New (page B-27)	New (page B-27)
<b>Console Overview</b> screen	Existing	Existing	New (page B-40)	N/A
G-II logo on splash screen On power up, the GUI displays the text "Generation-II" directly under the logo to show that the console is running the G-II software.	Existing	New	New	New

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## Chapter 2: Internal Effects

This chapter details the following eight internal effects of the G-II software:

- **Ambience reverb** (see below)
- **Chamber reverb** (see “Chamber reverb” on page B-4)
- **Hall reverb** (see “Hall reverb” on page B-5)
- **Plate reverb** (see “Plate reverb” on page B-7)
- **Vintage room reverb** (see “Vintage room” on page B-8)
- **Stereo chorus** (see “Stereo chorus” on page B-10)
- **Dual stereo delay** (see “Dual stereo delay” on page B-10)
- **Matrix mixer** (see “Matrix mixer” on page B-12)

### Ambience reverb

The ambience reverb adds warmth and depth to source material without adding the obvious artefacts commonly associated with artificial reverbs. It simulates smaller rooms using diffuse early reflections with the additional flexibility of separate reverb tail level and decay control.

Reflective surface materials and air absorption properties can be simulated by adjusting the high and low frequency cut amount and high frequency damping.

If the global tap option is enabled the pre-delay parameter units will change from milliseconds to musical note durations as they do with the current effect units.



<b>Item</b>	<b>Element</b>	<b>Function</b>
1	<b>input</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the input meters.
2	<b>Mix</b> control knob	Adjusts the dry/wet signal ratio.
3	<b>Modulation</b> control knob	Specifies the combined rate and depth of modulation applied the reverb tail.
4	<b>In</b> switch	Switches the Plate Reverb effect in/out.
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14		
15		

Item	Element	Function
5	<b>Audition</b> button	This momentary-action button triggers a short internally generated sound to aid reverb evaluation (as a check).
6	<b>output</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the output meters.
7	<b>HF Cut</b> control knob	High frequency cut control knob applies a 6dB/Oct low pass filter to the input signal, in the range 200Hz to 20kHz.
8	<b>LF Cut</b> control knob	Low frequency cut control knob applies a 6dB/Oct high pass filter to the input signal, in the range 10Hz to 500Hz.
9	<b>HF Damp</b> control knob	High frequency damping, progressively reduces the high frequency content over time, in the range 1kHz to 20kHz.
10	<b>Tail Gain</b> control knob	Increases the level of the reverb tail, between off and 0dB.
11	<b>Diffusion</b> control knob	Increases the density of both the early reflections and reverb tail, between 0 and 100%.
12	<b>Decay</b> control knob	Adjusts the decay time relative to the room size, from minimum to maximum.
13	<b>Size</b> control knob	Specifies the room size (also affects decay), from small to large.
14	<b>Predelay</b> control knob	Specifies the time before the reverb begins, between 0ms and 200ms.

## Chamber reverb

The chamber reverb emulates the sound of echo chambers found in early recording studios. This is characterised by a rapid build up of reflection density within a small to medium sized space coupled with a relatively colourless and smooth decay.

Reflective surface materials and air absorption properties can be simulated by adjusting the high and low frequency cut amount and high frequency damping. Low frequency decay and cross-over parameters allow relative control over the low band reverb tail length. This can be used to either simulate real room responses, which often have a longer decay time at low frequencies, or alternatively can be useful to reduce low frequency energy in a live environment where it may already be present due to the natural reverberation of the venue.

If the global tap option is enabled the pre-delay parameter units will change from milliseconds to musical note durations as they do with the current effect units.



<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>1</b>	<b>input</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the input meters.
<b>2</b>	<b>mix</b> control knob	Adjusts the dry/wet signal ratio.
<b>3</b>	<b>modulation</b> control knob	Specifies the combined rate and depth of modulation applied the reverb tail.
<b>4</b>	<b>contour time</b> control knob	Controls the time over which the reflection density increases during the initial portion of the reverb tail.
<b>5</b>	<b>If x-over</b> control knob	Specifies the cross-over frequency for the low frequency decay ( <b>If decay</b> ), in the range 20Hz – 500Hz.
<b>6</b>	<b>output</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the output meters.
<b>7</b>	<b>Audition</b> button	This momentary-action button triggers a short internally generated sound to aid reverb evaluation (as a check).
<b>8</b>	<b>hf cut</b> control knob	High frequency cut control knob applies a 6dB/Oct low pass filter to the input signal, in the range 200Hz to 20kHz.
<b>9</b>	<b>If cut</b> control knob	Low frequency cut control knob applies a 6dB/Oct high pass filter to the input signal, in the range 10Hz to 500Hz.
<b>10</b>	<b>hf damp</b> control knob	High frequency damping, progressively reduces the high frequency content over time, in the range 1kHz to 20kHz.
<b>11</b>	<b>If decay</b> control knob	Specifies the ratio of decay for low frequency content, in the range 0.5 – 2.0.
<b>12</b>	<b>diffusion</b> control knob	Increases the density of both the early reflections and reverb tail, between 0 and 100%.
<b>13</b>	<b>decay</b> control knob	Adjusts the decay time relative to the room size, from minimum to maximum.
<b>14</b>	<b>size</b> control knob	Specifies the room size (also affects decay), from small to large.
<b>15</b>	<b>pre delay</b> control knob	Specifies the time before the reverb begins, between 0ms and 200ms.
<b>16</b>	<b>In</b> switch	Switches the Plate Reverb effect in/out.

## Hall reverb

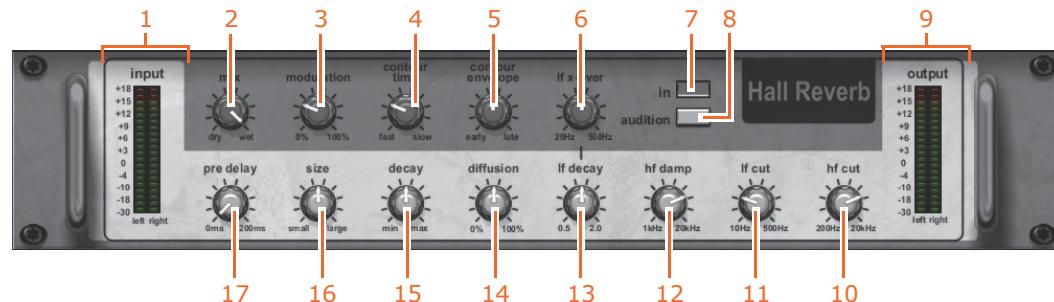
The hall reverb simulates the response of a real concert hall adding a sense of space to the source material with less initial density than a chamber reverb. The slower build up of reflections and generally longer decay times associated with this type of algorithm allows for increased clarity of the source, while offering a richer more lush overall sound that is less dense in character.

This effect features contour controls to adjust the envelope shape during the initial portion of the reverb tail and also the time over which the reflection density increases.

Reflective surface materials and air absorption properties can be simulated by adjusting the high and low frequency cut amount and high frequency damping. Low frequency decay and cross-over parameters allow relative control over the low band reverb tail length. This can be used to either simulate real room responses, which often have a

longer decay time at low frequencies or alternatively can be useful to reduce low frequency energy in a live environment where it may already be present due to the natural reverberation of the venue.

If the global tap option is enabled the pre-delay parameter units will change from milliseconds to musical note durations as they do with the current effect units.



Item	Element	Function
<b>1</b>	<b>input</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the input meters.
<b>2</b>	<b>mix</b> control knob	Adjusts the dry/wet signal ratio.
<b>3</b>	<b>modulation</b> control knob	Specifies the combined rate and depth of modulation applied the reverb tail.
<b>4</b>	<b>contour time</b> control knob	Controls the time over which the reflection density increases during the initial portion of the reverb tail, between fast and slow.
<b>5</b>	<b>contour envelope</b> control knob	Controls the time over which the reflection density increases during the initial portion of the reverb tail, between fast and slow.
<b>6</b>	<b>If x-over</b> control knob	Specifies the cross-over frequency for the low frequency decay ( <b>If decay</b> ), in the range 20Hz – 500Hz.
<b>7</b>	<b>in</b> switch	Switches the Plate Reverb effect in/out.
<b>8</b>	<b>audition</b> button	This momentary-action button triggers a short internally generated sound to aid reverb evaluation (as a check).
<b>9</b>	<b>output</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the output meters.
<b>10</b>	<b>hf cut</b> control knob	High frequency cut control knob applies a 6dB/Oct low pass filter to the input signal, in the range 200Hz to 20kHz.
<b>11</b>	<b>If cut</b> control knob	Low frequency cut control knob applies a 6dB/Oct high pass filter to the input signal, in the range 10Hz to 500Hz.
<b>12</b>	<b>hf damp</b> control knob	High frequency damping, progressively reduces the high frequency content over time, in the range 1kHz to 20kHz.
<b>13</b>	<b>If decay</b> control knob	Specifies the ratio of decay for low frequency content, in the range 0.5 – 2.0.
<b>14</b>	<b>diffusion</b> control knob	Increases the density of both the early reflections and reverb tail, between 0 and 100%.

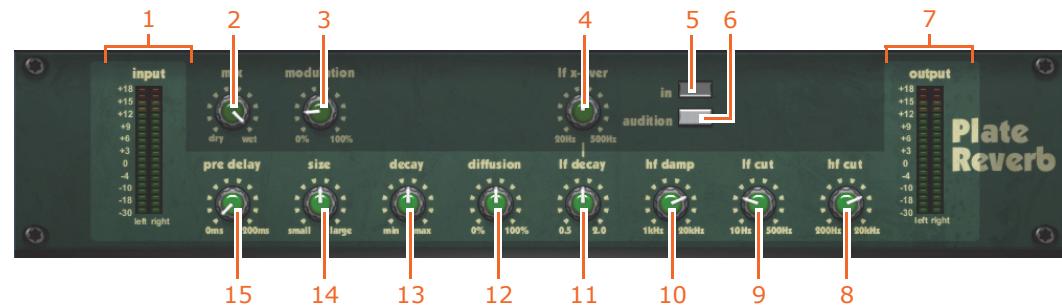
Item	Element	Function
15	<b>decay</b> control knob	Adjusts the decay time relative to the room size, from minimum to maximum.
16	<b>size</b> control knob	Specifies the room size (also affects decay), from small to large.
17	<b>pre delay</b> control knob	Specifies the time before the reverb begins, between 0ms and 200ms.

## Plate reverb

The plate reverb effect simulates the actual plate reverb devices that were used in studios in the 1960s and 1970s. They were literally a plate of metal that was suspended under tension with a transducer to transmit audio to the plate while two or more contact microphones were attached to the plate to pick up the results. The plate reverb has a very rapid build up of reflections and, as a result, is very dense initially with a fairly smooth decay characteristic. For this reason it is typically the first reverb choice for percussion instruments.

Reflective surface materials and air absorption properties can be simulated by adjusting the high and low frequency cut amount and high frequency damping. Low frequency decay and cross-over parameters allow relative control over the low band reverb tail length. This can be used to either simulate real room responses, which often have a longer decay time at low frequencies, or alternatively can be useful to reduce low frequency energy in a live environment where it may already be present due to the natural reverberation of the venue.

Enabling the global tap option will change the pre-delay parameter units from milliseconds to musical note durations as they do with the current effect units.



Item	Element	Function
1	<b>input</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the input meters.
2	<b>mix</b> control knob	Adjusts the dry/wet signal ratio.
3	<b>modulation</b> control knob	Specifies the combined rate and depth of modulation applied the reverb tail.
4	<b>If x-over</b> control knob	Adjusts the cross-over frequency for the low frequency decay, in the range 20Hz to 500Hz.
5	<b>in</b> switch	Switches the Plate Reverb effect in/out.
6	<b>audition</b> button	This momentary-action button triggers a short internally generated sound to aid reverb evaluation (as a check).

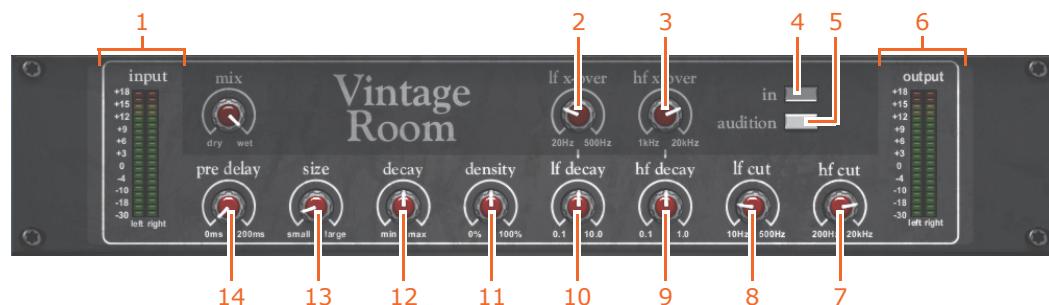
<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>7</b>	<b>output</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the output meters.
<b>8</b>	<b>hf cut</b> control knob	High frequency cut control knob applies a 6dB/Oct low pass filter to the input signal, in the range 200Hz to 20kHz.
<b>9</b>	<b>lf cut</b> control knob	Low frequency cut control knob applies a 6dB/Oct high pass filter to the input signal, in the range 10Hz to 500Hz.
<b>10</b>	<b>hf damp</b> control knob	High frequency damping, progressively reduces the high frequency content over time, in the range 1kHz to 20kHz.
<b>11</b>	<b>lf decay</b> control knob	Adjusts the ratio of decay for low frequency content, between 0.5 and 2.0.
<b>12</b>	<b>diffusion</b> control knob	Increases the density of both the early reflections and reverb tail, between 0 and 100%.
<b>13</b>	<b>decay</b> control knob	Adjusts the decay time relative to the room size, from minimum to maximum.
<b>14</b>	<b>size</b> control knob	Specifies the room size (also affects decay), from small to large.
<b>15</b>	<b>pre delay</b> control knob	Specifies the time before the reverb begins, between 0ms and 200ms.

## Vintage room

The vintage room reverb effect provides an incredibly natural sounding reverb in the style of the earliest digital reverberators that became popular during the 1980s. Its strength is in recreating natural acoustic ambiances with a very warm and dense characteristic without sounding particularly artificial.

Reflective surface materials and air absorption properties can be simulated by adjusting the high and low frequency cut amount. Low frequency decay and cross-over parameters allow relative control over the low band reverb tail length. This can be used to either simulate real room responses, which often have a longer decay time at low frequencies or alternatively can be useful to reduce low frequency energy in a live environment where it may already be present due to the natural reverberation of the venue. High frequency decay and cross-over parameters provide additional control over the high band reverb tail length.

Enabling the global tap option will change the pre-delay parameter units from milliseconds to musical note durations as they do the current effect units.



<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>1</b>	<b>input</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the input meters.
<b>2</b>	<b>lf x-over</b> control knob	Adjusts the cross-over frequency for the low frequency decay.
<b>3</b>	<b>hf x-over</b> control knob	Adjusts the cross-over frequency for the high frequency decay.
<b>4</b>	<b>in</b> switch	Switches the Vintage Room reverb effect in/out.
<b>5</b>	<b>audition</b> button	This momentary-action button triggers a short internally generated sound to aid reverb evaluation (as a check).
<b>6</b>	<b>output</b> meter	Two adjacent 11-LED columns — one each for left and right — comprise the output meters.
<b>7</b>	<b>hf cut</b> control knob	High frequency cut control knob applies a 6dB/Oct low pass filter to the input signal, in the range 200Hz to 20kHz.
<b>8</b>	<b>lf cut</b> control knob	Low frequency cut control knob applies a 6dB/Oct high pass filter to the input signal, in the range 10Hz to 500Hz.
<b>9</b>	<b>hf decay</b> control knob	Adjusts the ratio of decay for high frequency content, between 0.1 and 1.0.
<b>10</b>	<b>lf decay</b> control knob	Adjusts the ratio of decay for low frequency content, between 0.1 and 10.0.
<b>11</b>	<b>density</b> control knob	Increases the reflection density of the reverb tail, between 0 and 100%.
<b>12</b>	<b>decay</b> control knob	Adjusts the decay time relative to the room size, from minimum to maximum.
<b>13</b>	<b>size</b> control knob	Specifies the room size (also affects decay), from small to large.
<b>14</b>	<b>pre delay</b> control knob	Specifies the time before the reverb begins, between 0ms and 200ms.

## Stereo chorus

Emulation of dual stereo chorus but with having two units in one rack space.



Item	Element	Function
1	<b>in</b> switch	Switches the stereo chorus effect in/out.
2	<b>stereo input</b> switch	Changes the operation to be stereo in and stereo out.
3	Preset <b>slow</b> switch	Sets a slow rate with minimal depth.
4	Preset <b>deep</b> switch	Sets a slow rate with maximum depth.
5	Preset <b>medium</b> switch	Sets a medium rate with minimal depth.
6	Preset <b>fast</b> switch	Sets a fast rate with minimal depth.
7	<b>depth</b> control knob	Adjusts the amount of modulation applied to the pitch in the range 0 to 100%.
8	<b>rate</b> control knob	Adjusts the speed of modulation applied to the pitch in the range 0.1Hz to 2Hz.
9	<b>width</b> control knob	Adjusts the stereo spread of the output signal from mono to stereo.
10	<b>mix</b> control knob	Adjusts the dry/wet signal ratio.
11	Meters	Input and output meters.

## Dual stereo delay

The dual stereo delay effect is a simpler, more concise, version of the current delay device with the advantage of having two units in one effect device rack space. The dual stereo delay is a dual stereo in and dual stereo out device with metering for each discrete input and output.

### BPM display mode:

- Tempo is accurate to 0.1 bpm.
- With global tap enabled the display shows global tempo regardless of delay time setting.
- With global tap disabled the display shows the equivalent tempo assuming a delay of one beat. For example, if the delay time is 500ms the tempo is calculated as  $60/0.5 = 120$  bpm.
- Up/down buttons adjust local or global tap tempo by 0.1 bpm.

### Millisecond display mode:

- With global tap enabled the display shows current delay (in milliseconds) based on global tempo and selected musical interval. For example, if a 1/8 dot interval is

selected on the delay control and the global tempo is 120 bpm the delay value shown will be  $0.75 \times 60/120$  bpm = 375 ms.

- With global tap disabled the display shows the actual delay time set on the unit.
- Up/down buttons adjust delay units by 1 millisecond increments.

If the global tap option is enabled the delay time rotaries will change from seconds (milliseconds) to musical note durations as they do with the current effects units. However, the seven-segment LED display will continue to follow the display mode selected. Also, if the global tap option is enabled the tap button on the unit will not affect the global tempo and should be greyed out.



Item	Element(s)	Function
1	On/off switch	Switches the delay effect in or out.
2	<b>delay time</b> controls	The control knob adjusts the delay time in the range 0 seconds to 2 seconds in 5 milliseconds increments. In global tap mode, adjusts the note intervals.
	X2 switch	Switching the <b>X2</b> switch changes the delay time scale to 0 seconds to 4 seconds in 10 millisecond intervals.
3	<b>tap</b> button	Use this button to tap in the delay time or tempo manually.
4	<b>up</b> and <b>down</b> buttons	Increases/decreases the delay time by 1 millisecond 0.1 bpm
5	Display	Shows current delay time and selected unit.
6	<b>feedback</b> control knob	Adjusts the delay feedback loop gain in the range 0 to 100%.
7	<b>lf cut</b> controls	This low frequency control knob applies a 6dB/Oct high pass filter to the delay and optionally feedback signal (by switching on the <b>post fb</b> switch below). The default is post-delay and pre-feedback. Range is from 10Hz to 500Hz.
8	<b>hf cut</b> controls	This high frequency control knob applies a 6dB/Oct low pass filter to the delay and optionally feedback signal (by switching on the <b>post fb</b> switch below). The default is post-delay and pre-feedback. Range is from 200Hz to 20kHz.
9	<b>mix</b> control knob	Adjusts the dry/wet signal ratio.
10	Meters	Input and output meters.

## Matrix mixer

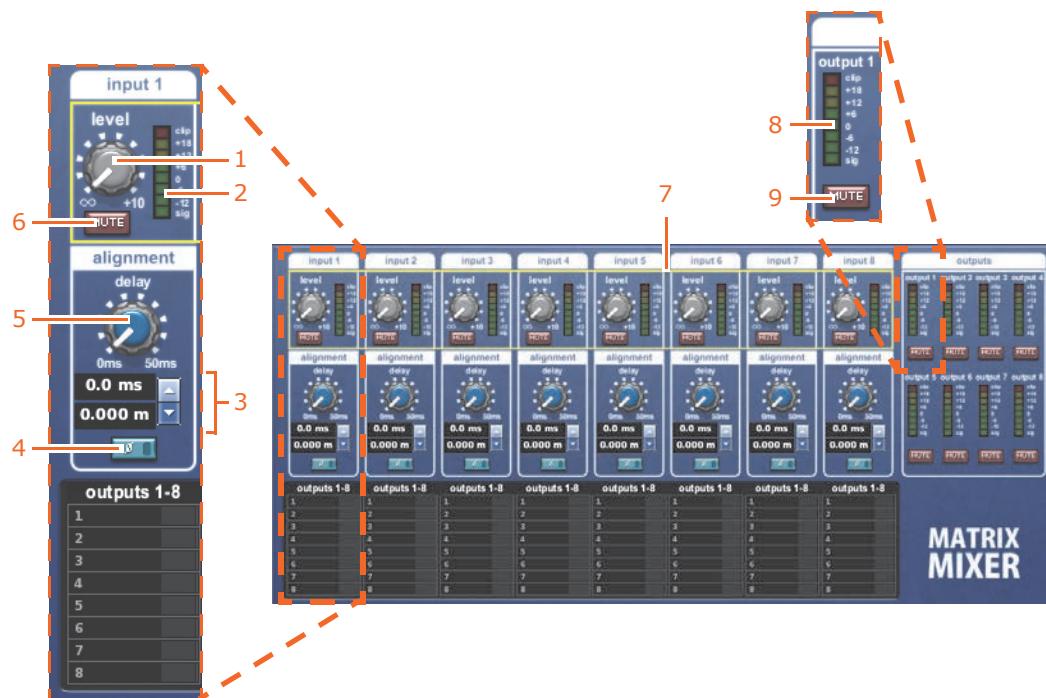
The matrix mixer is an eight mono I/O device with discrete metering for each input and output. The display of the matrix mixer comprises controls that duplicate the equivalent ones on the control surface and can be used as an alternative method of operation. You can link the output EQ settings across channels and also link odd and even outputs as a stereo pair, which is a GUI-only function.

Unlike the other internal effects, the matrix mixer has two screens (input and output), which require specific navigational methods (see “Navigating the input and output screens” on page 16). Both screens provide an overview of the other to save you having to navigate between them in order to obtain incidental information.

**Note:** The global tap option does not apply to the matrix mixer.

### Input screen

The input screen shows the signal level, delay and output send contributions for the inputs and, to the right, an overview of the outputs with facility for muting.



Item	Element	Function
1	<b>level</b> control knob	Continuous adjustment of the input level from $\infty$ (infinity) to +10dB.
2	Meter	11-segment meter for showing the input channel level.
3	Up/down arrows	Increases/decreases the input delay time (shown in milliseconds and metres) in 0.01 millisecond increments. You can also type in the value in the fields.
4	Phase switch $\otimes$	Adjusts the input signal phase by 180°.
5	<b>delay</b> control knob	Adjusts the input delay time within the range 0ms to 50ms in 0.01 ms increments.
6	<b>MUTE</b> switch	Mutes the input channel.
7		
8		
9		

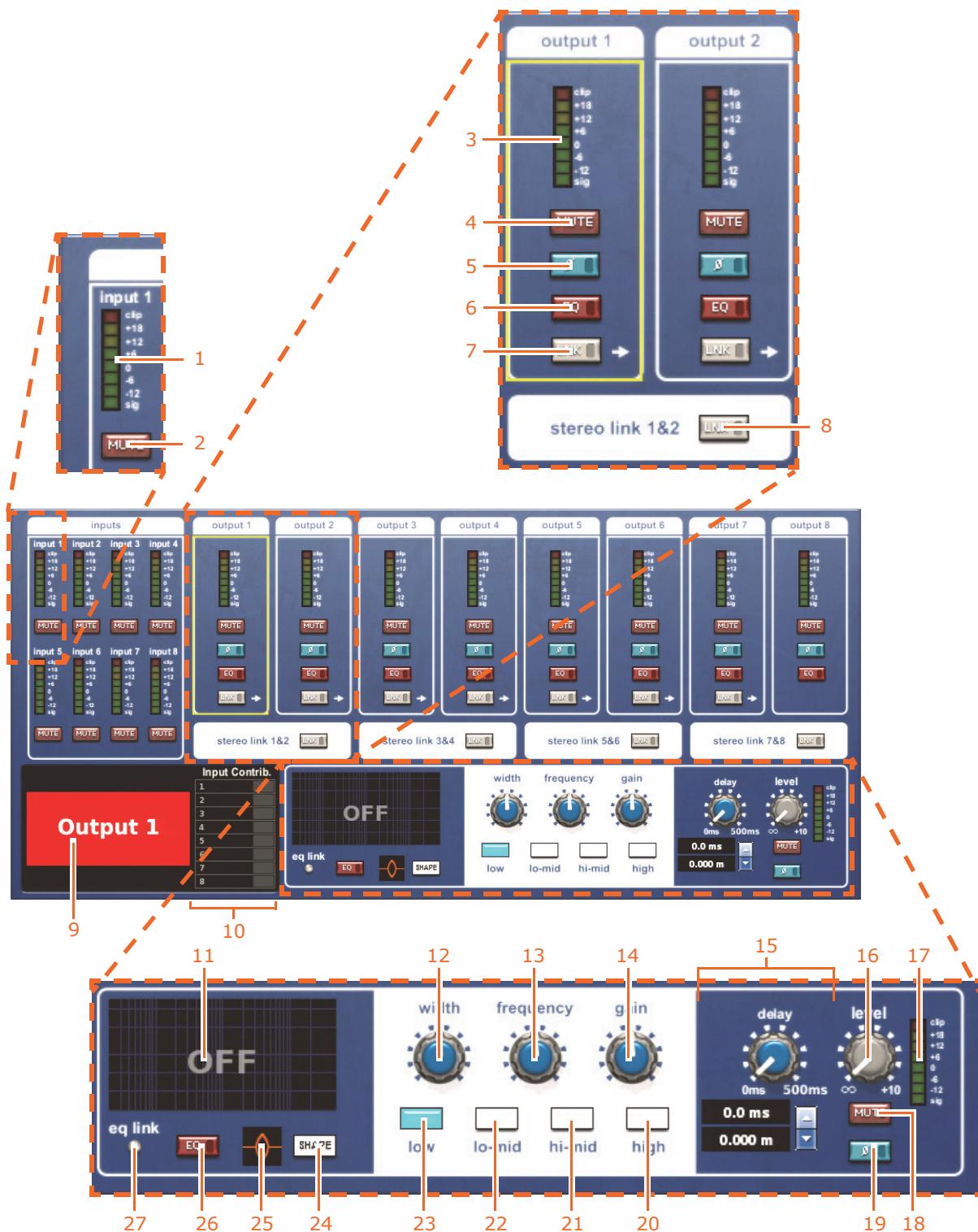
<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>7</b>	Yellow box	Shows which controls are currently assigned to the <b>assignable controls</b> panel.
<b>8</b>	Meter	11-segment meter for showing the output channel level.
<b>9</b>	<b>MUTE</b> switch	Mutes the output channel.

**>> To switch an output mix send on/off**

You can have any combination of the eight outputs contributing to each input. To switch an output on/off, navigate to the desired output using the left/right navigation (see “Navigating the input and output screens” on page 16) and click the associated button in the **assignable controls** panel.

### Output screen

The output screen shows the output channel controls with a detail area underneath for the selected. An inputs section to the left provides an input overview, with facility for muting.



<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>1</b>	Meter	8-segment meter for showing the input channel level.
<b>2</b>	<b>MUTE</b> switch	Mutes in input channel.
<b>3</b>	Meter	8-segment meter for showing the output channel level.
<b>4</b>	<b>MUTE</b> switch	Mutes the output channel.
<b>5</b>	Phase switch $\emptyset$	Adjusts the output signal phase by 180°.
<b>6</b>	<b>EQ</b> switch	Switches the output channel EQ in/out.
<b>7</b>	<b>LINK</b> switch	Links the EQ of the local output channel to the adjacent output channel to the right.
<b>8</b>	<b>LINK</b> switch	See "Stereo linking" on page 17.
<b>9</b>	Output channel identifier	Shows the name of the currently selected output and indicates, by its background colour, which pair it belongs to.
<b>10</b>	Input contributions panel	Shows the level contributions of the eight input channels for the selected output channel. However, when a pair of output channels are stereo linked, its function changes (see "Stereo linking" on page 17.).
<b>11</b>	Graph	Displays the EQ envelope of the selected output channel.
<b>12</b>	<b>width</b> control knob	Adjusts the filter width of the EQ band for the selected output channel, in the range 0.1 – 3.0 Oct.
<b>13</b>	<b>frequency</b> control knob	Adjusts the filter frequency of the selected EQ band for the selected output channel, using the same frequency ranges as the standard input channel EQ.
<b>14</b>	<b>gain</b> control knob	Adjusts the filter gain of the selected EQ band for the selected output channel, in the range -16dB to +16dB.
<b>15</b>	<b>delay</b> controls	Provides adjustment of the output delay via control knob or up/down arrows for the selected output channel, in the range 0ms – 500ms. Delay time accuracy is to 0.01 millisecond. Delay is also shown as a distance (metres).
<b>16</b>	<b>level</b> control knob	Continuous signal level adjustment of the selected output channel, from $\infty$ (infinity) to +10dB.
<b>17</b>	Meter	8-segment meter for showing the level of the selected output channel.
<b>18</b>	<b>MUTE</b> switch	Mutes the selected output channel.
<b>19</b>	Phase switch $\emptyset$	Adjusts the output signal phase by 180° on the selected output channel.
<b>20</b>	<b>high</b> button	Switches the EQ controls to work with the High EQ band on the selected output channel.
<b>21</b>	<b>hi mid</b> button	Switches the EQ controls to work with the Hi-Mid EQ band on the selected output channel.
<b>22</b>	<b>lo mid</b> button	Switches the EQ controls to work with the Lo-Mid EQ band on the selected output channel.
<b>23</b>	<b>low</b> button	Switches the EQ controls to work with the Low EQ band on the selected output channel.
<b>24</b>	<b>SHAPE</b> button	Selects the shelving mode for the high and low EQ bands on the selected output channel. For information on the shelving modes, see "EQ (E zone)" on page 266.

<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>25</b>	Icon	Identifies the currently selected EQ shelving mode (see “EQ (E zone)” on page 266). Default parametric icon is  .
<b>26</b>	<b>EQ switch</b>	Switches the EQ in/out for the selected channel.
<b>27</b>	<b>eq link</b> LED	Illuminates to indicate that the EQ is on for the selected channel.

### Navigating the input and output screens

The up and down navigation arrow buttons on the Matrix Mixer operate in the same way as on any internal effect (see “Rack and unit control navigation” on page 174). However, as this effect is unique in that it has two screens, the left and right buttons function in a slightly different manner, as described in this section.



<b>Navigation button</b>	<b>Function</b>
	Scrolls consecutively down through the input screen sections (input, alignment and output mix sends) and then left to right through the outputs of the output screen, crossing over screens in between. See Figure 1 on page 17.
	Scrolls in the opposite direction to the right arrow button.

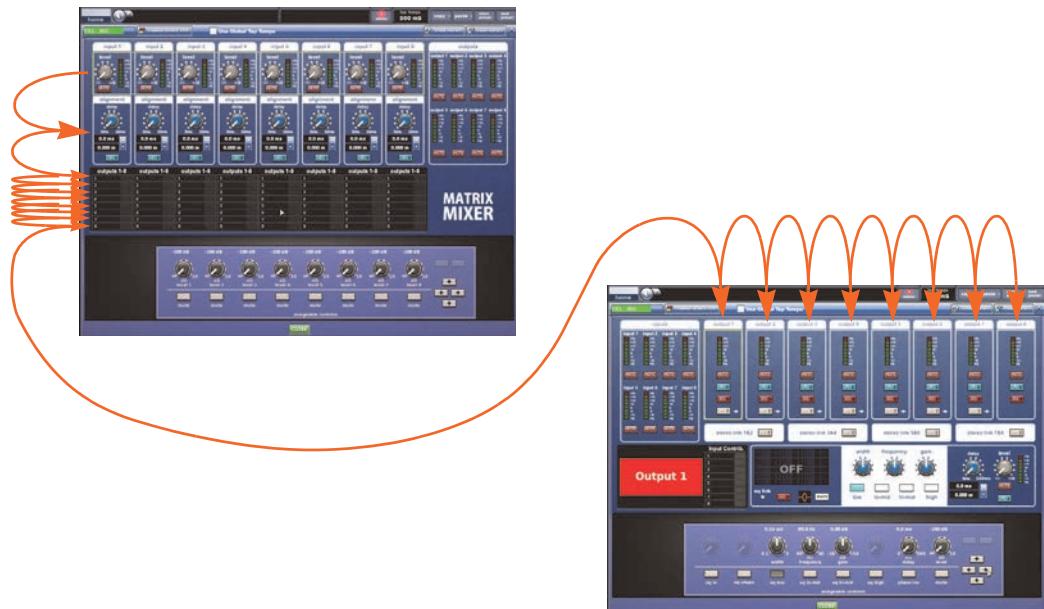
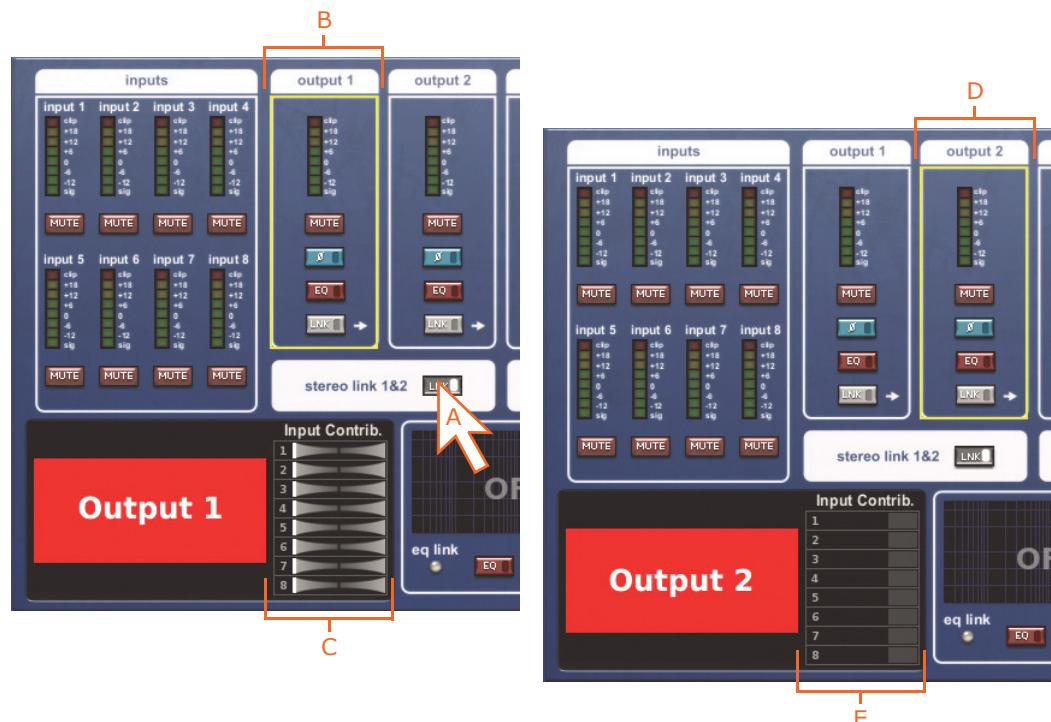


Figure 1: Scrolling order of right arrow navigation button

### Stereo linking

Clicking a stereo linking button (**LNK**) stereo links the local pair of output channels, so that the input mix send controls operate as pan on the left (odd numbered) output channel and level on the right (even numbered) output channel, which is similar to the normal mix sends on the console.



#### Stereo linking a pair of output channels (for example, outputs 1 and 2)

Click the local stereo link button (**A**) to link the two outputs, so that output 1 (**B**) now becomes panning (**C**) and output 2 (**D**) remains as signal level (**E**).



# Chapter 3: Advanced Navigation

This chapter explains how the following advanced navigation modes — which are already used on the PRO2, PRO2C and PRO1 — have been incorporated into the PRO3, PRO6, PRO9 and XL8.

- **Collapsed flip**
- **Effects (FX) navigation**
- **GEQ navigation**
- **Mix control association (MCA) mode**

## About the advanced navigation features

The following table shows the implementation of the advanced navigation features for all of the Midas Digital Consoles and the subsections give a brief description of the main ones.

**Table 1: G-II advanced navigation features across the Midas Digital Console range**

Feature	PRO1	PRO2 and PRO2C	PRO3	PRO6	PRO9	XL8
Flip	Existing	Existing	Existing	Existing	Existing	Existing, but no flip button
Collapsed flip	Existing	Existing	Existing	Existing	Existing	New
FX	N/A*	Existing	New	New	New	New
GEQ	Existing	Existing	New	New	New	New
MCAs	N/A	Existing	New	New	New	New
Outputs on VCA faders	Existing	Existing	Not required	Not required	Not required	Not required
Outputs on input faders	Existing	Existing	Not required	Not required	Not required	Not required
Assign (extend) inputs to VCA faders	Existing	Existing	Not required	Not required	Not required	Not required
Assign (extend) outputs to VCA faders	Existing	Existing	N/A	N/A	N/A	Not required
Home	Existing	Existing	New	New	New	New

\* The PRO1 does not have an equivalent of the **FX** button.

### Flip

In flip mode, channel faders become the mix send contributions to any selected output channel.

### Collapsed flip

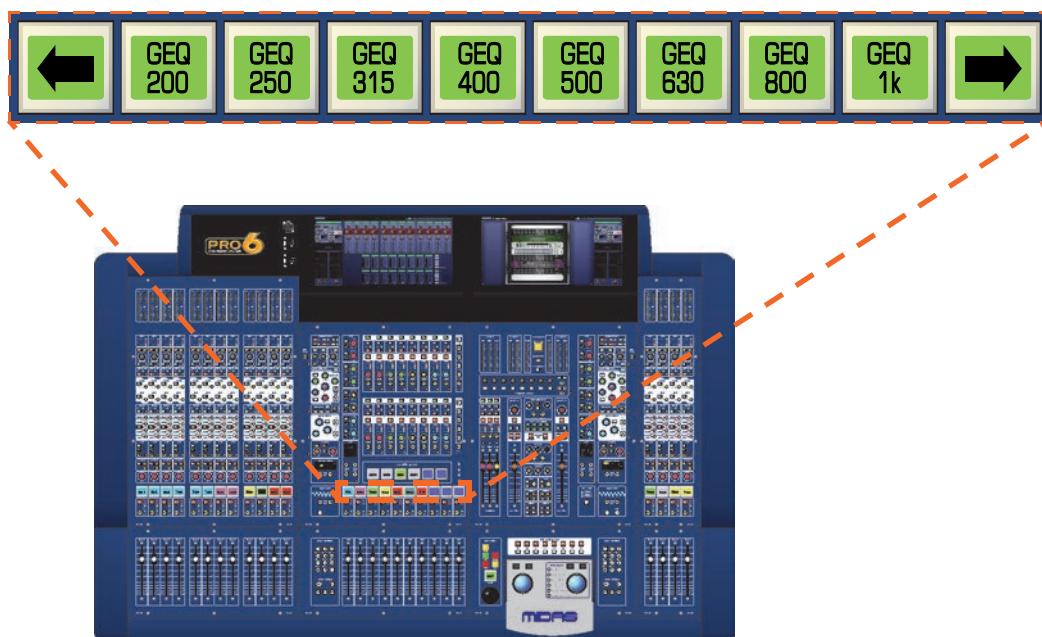
With flip in operation, channels not assigned to the selected bus are hidden.

### FX

In FX advanced navigation mode, if you select an aux send that is patched to an effect, that effect will appear on the GUI.

### GEQ

In GEQ advanced navigation mode the faders underneath the VCA groups also operate as GEQ faders. The role of the LCD select buttons in the VCA groups section change to display their local fader assignments; the left and right arrow buttons are used to scroll the faders of the GEQ.



*Typical LCD button assignments in the VCA groups section when in GEQ advanced navigation mode (for example, on a PRO6)*

### MCA

In MCA advanced navigation mode the faders underneath the VCA groups operate as mix control associates (MCAs), where the aux sends on multiple input channels have an associated master fader that provides overall control. This is similar to how a VCA fader operates on the main channel faders and MCA faders also have the same names and channel members as the VCAs.

### Home

Selecting the advanced navigation home button changes the GUI screens to their default displays.

## Activating the advanced navigation features

Both the PRO Series and XL8 use the LCD buttons in their respective population groups section to momentarily change their role and act as the advanced navigation buttons, which are then available for selection.

**Note:** You cannot have both the GEQ and MCA advanced navigation features active at the same time.

### >> To activate/deactivate an advanced navigation feature on the PRO Series

- 1 In the **channel select** section, press and hold down the asterisk (\*) button (see Figure 1). After about one second the LCD buttons in the **population groups** section should show their advanced navigation assignments.
- 2 Do one of the following:
  - To activate an advanced navigation feature, press the desired button while still holding down asterisk (\*) button. For example, to activate the effects feature, press the **FX** button (see Figure 1).
  - To deactivate an advanced navigation feature, press the button of the desired active feature while still holding down asterisk (\*) button.
- 3 Release the asterisk (\*) button. The **population groups** section should revert to its normal role.

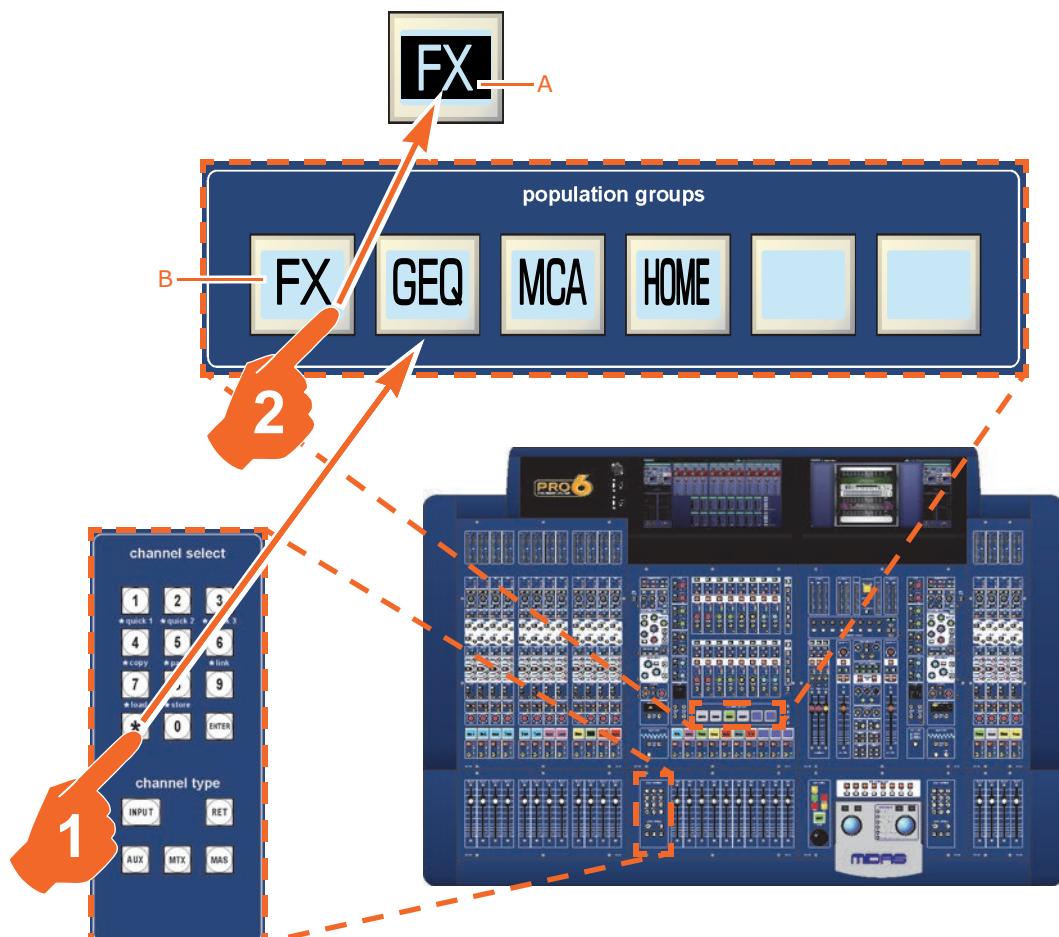


Figure 1: Activating and selecting the advanced navigation buttons (for example, on a PRO6). When an advanced navigation mode is active, its associated LCD button displays a dark background (A) and, when inactive, the background is blue (B).

## &gt;&gt; To activate/deactivate an advanced navigation feature on the XL8

- 1 In any **input select** section, press and hold down the asterisk (\*) button (see Figure 2). After about one second the LCD buttons in the population group section should show their advanced navigation assignments.
- 2 Do one of the following:
  - To activate an advanced navigation feature, press the desired button while still holding down asterisk (\*) button. For example, to activate flip, press the **FLIP** button (see Figure 2).
  - To deactivate an advanced navigation feature, press the button of the desired active feature while still holding down asterisk (\*) button.
- 3 Release the asterisk (\*) button. The population group section should revert to its normal role.

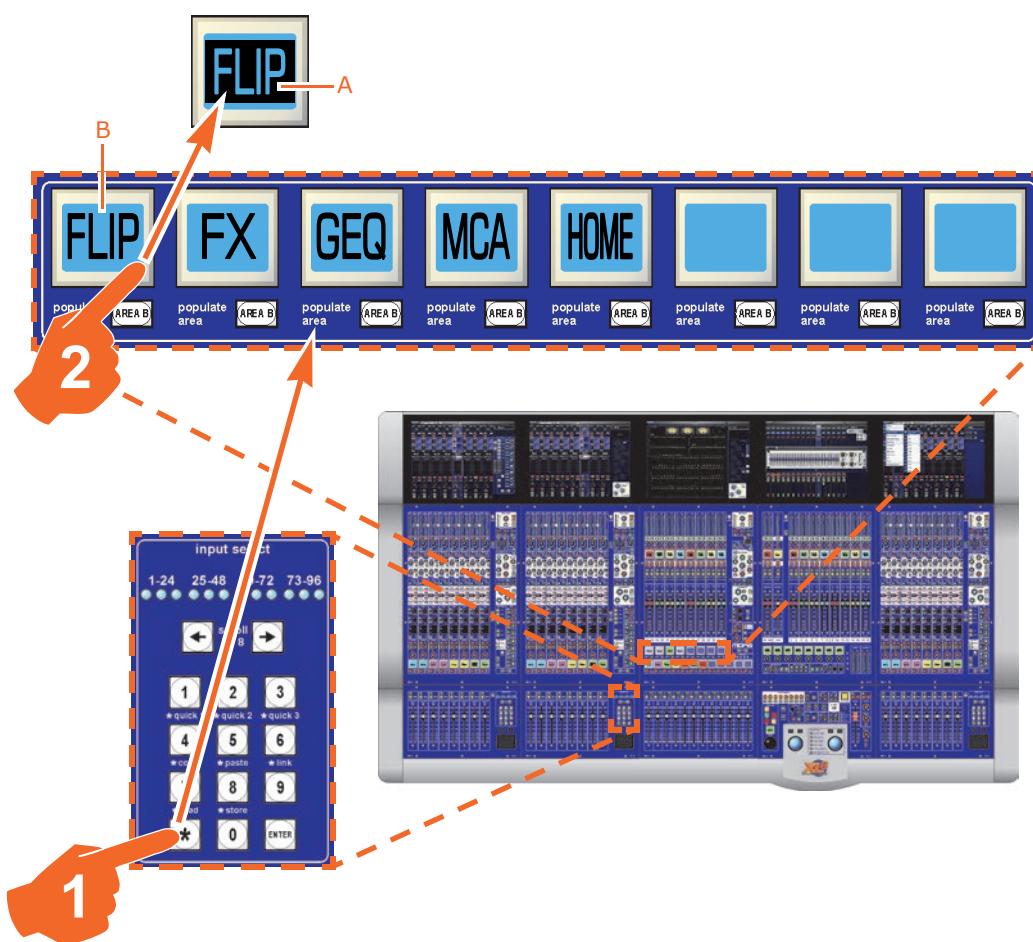


Figure 2: Activating and selecting the advanced navigation buttons on an XL8. When an advanced navigation mode is active, its associated LCD button displays a dark background (A) and, when inactive, the background is blue (B).

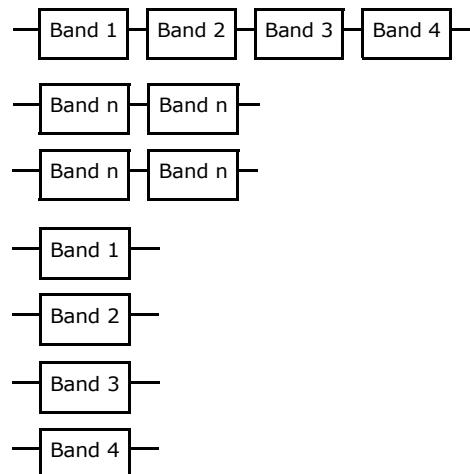
# Chapter 4: Other G-II Changes

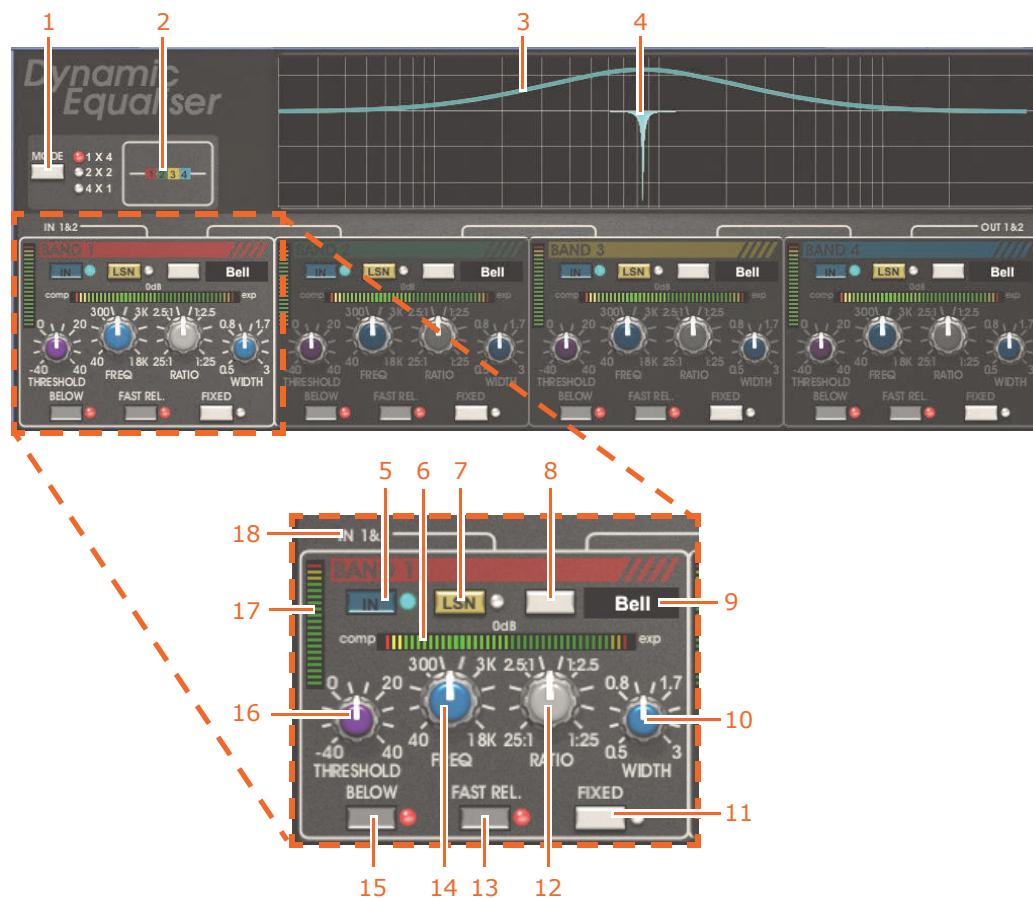
This chapter deals with the other changes in the G-II software.

## Dynamic EQ internal effect

The dynamic EQ is a 4-band parametric dynamic equaliser, which is able to provide frequency selective compression or expansion. The dynamic EQ features proportional-q filters that, when boosting or cutting by small amounts, reduce the bandwidth of the filter compared to the setting at maximum cut/boost. Filter coefficients are calculated at the audio rate to provide a lightning fast attack time, which is essential for transparent operation. Each band features a full-band EQ type that switches out the EQ filter so that the band operates as a non-frequency selective, or 'full-band' compressor/expander. Flexible routing options allow for the following configuration modes:

- One chain of stereo 4-band processing.
- Two chains of stereo 2-band processing.
- Four chains of stereo single-band processing.





Item	Element	Function
1	<b>MODE</b> button	Selects the routing configuration. Audio routing paths are illustrated by item 18.
2	Band selection indicator	Shows the selected routing configuration mode.
3	Limit curve	Shows the minimum cut/maximum boost EQ response for the selected band.
4	Dynamic curve	Shows the real time dynamic EQ response curve. This curve will vary between flat (no EQ) and the outer curve (full EQ) depending on the signal level, ratio and threshold settings.
5	<b>IN</b> button and LED indicator	Switches the individual band on/off.
6	<b>comp/exp</b> meter	Shows the current cut/boost of the selected EQ band.
7	<b>LSN</b> button and LED indicator	Sidechain listen button that routes the bandpass filtered sidechain signal to the unit output.
8	EQ type	Selects the type of equaliser (shown in item 9) from <b>Bell</b> , <b>Low Shelf</b> , <b>High Shelf</b> and <b>Full Band</b> .
9	Name field	Shows the currently selected EQ type.
10	<b>WIDTH</b> control knob	Sets the bandwidth of the EQ band and sidechain filter for the selected band.
11		
12		
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20		

<b>Item</b>	<b>Element</b>	<b>Function</b>
<b>11</b>	<b>FIXED</b> button and LED indicator	Forces selected band to use a fixed EQ gain, so that when it is enabled it behaves as a static EQ. This is useful for previewing the effect of the EQ curve.
<b>12</b>	<b>RATIO</b> control knob	Sets the ratio of the compression or expansion applied to the selected band. The centre position produces a ratio of 1:1, which will have no effect. As the control is turned anti-clockwise, more compression is applied, up to a ratio of 25:1. If the control is turned clockwise from the centre position, expansion is gradually applied up to the ratio of 1:25.
<b>13</b>	<b>FAST REL.</b> button and LED indicator	Enables fast envelope release setting.
<b>14</b>	<b>FREQ</b> control knob	Sets the centre frequency of the selected EQ band.
<b>15</b>	<b>BELOW</b> button and LED indicator	Sets whether the compressor/expander operates above (off) or below (on) the threshold (see Figure 1 "Transfer characteristics" on page 26).
<b>16</b>	<b>THRESHOLD</b> control knob	Sets the threshold level.
<b>17</b>	Meter	Shows the level of the sidechain signal relative to the threshold setting, that is, it shows the signal level within the frequency region selected by the frequency ( <b>FREQ</b> ) and width ( <b>WIDTH</b> ) controls.
<b>18</b>	Band I/O	Shows the audio routing path between inputs, outputs and the four EQ bands.

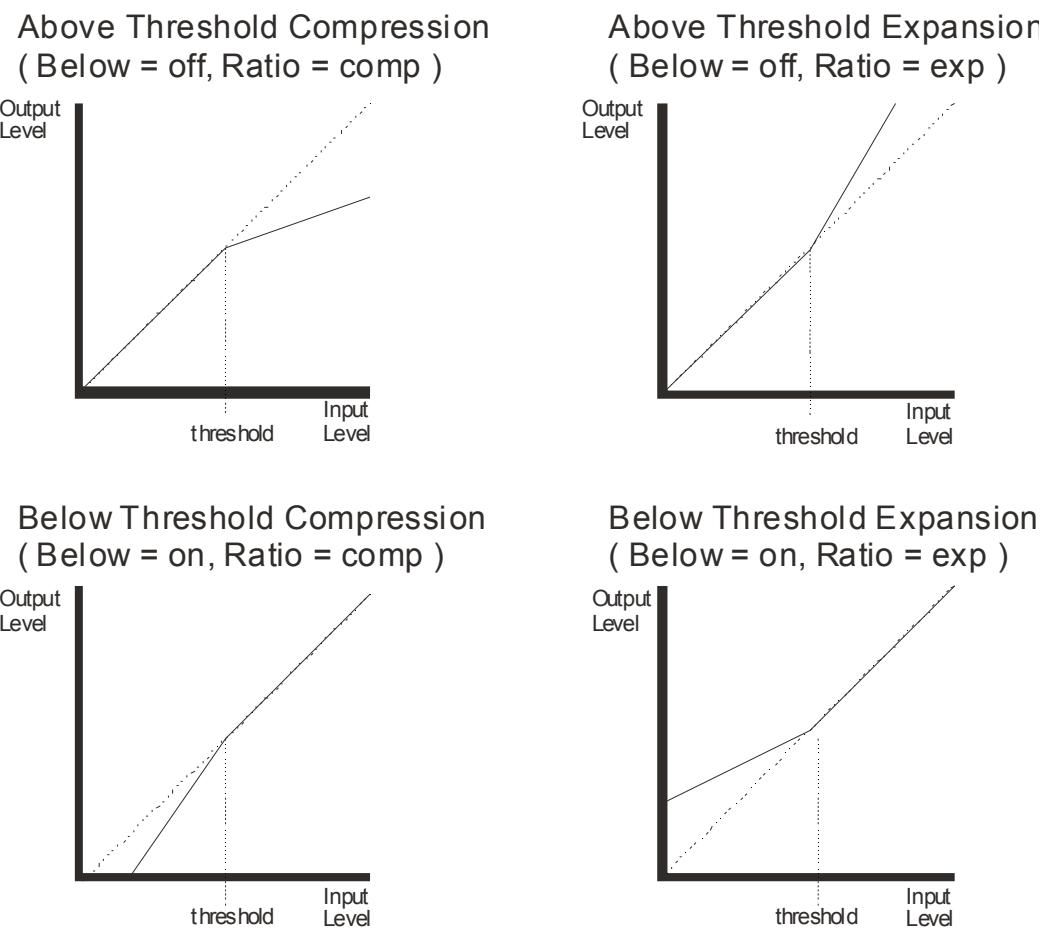
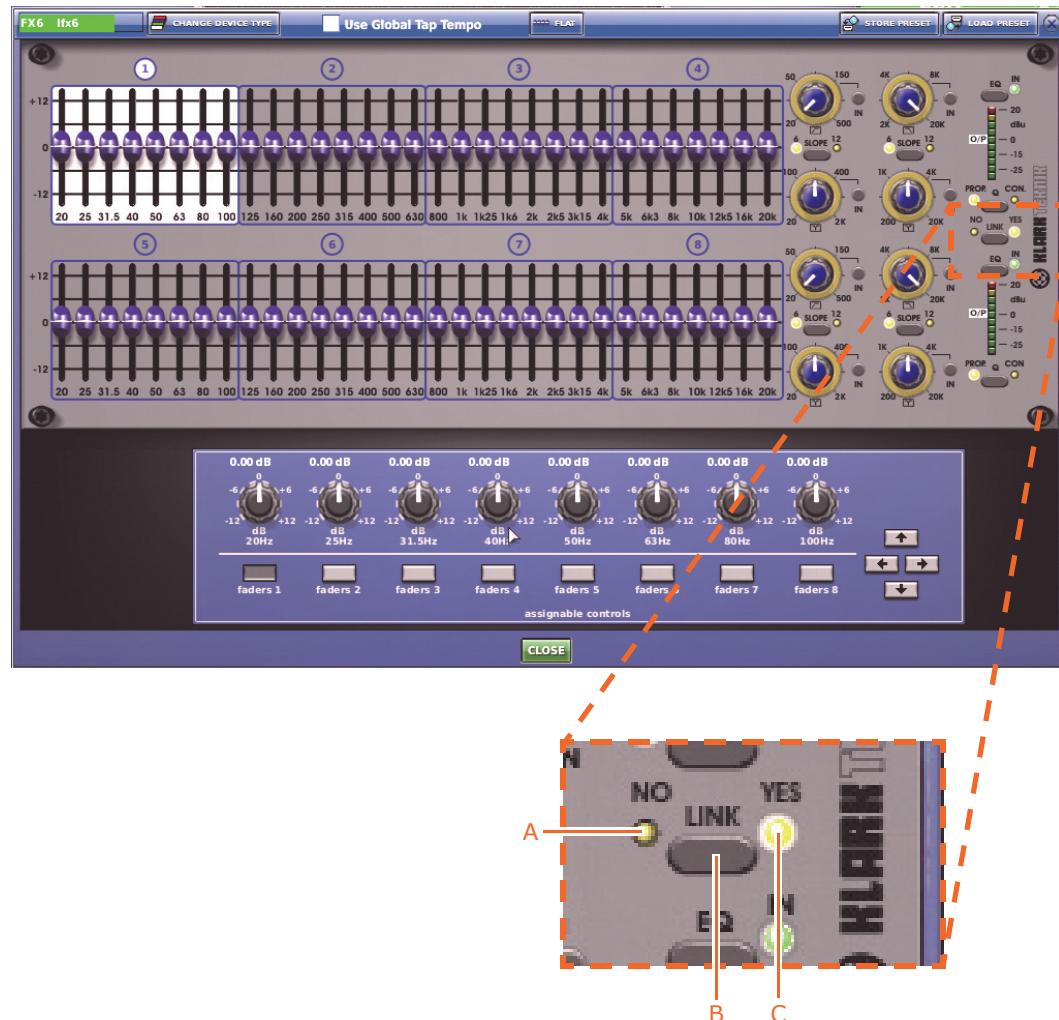


Figure 1: Transfer characteristics

## Stereo Graphic EQ effect

The Stereo Graphic EQ effect is based on the console's internal GEQ effect and has two of these that can be stereo linked. For more information on the GEQ effect, see the console's Owner's Manual.



The two GEQs can be stereo linked using the **LINK** button (B). The **YES** LED (C) illuminates to show that the two GEQs are stereo linked and the **NO** LED (A) illuminates when the GEQs are operating independently of each other.

To navigate the channels and controls of the GEQs, use the assignable control buttons and the left/right arrow buttons (see Figure 2 on page 28).

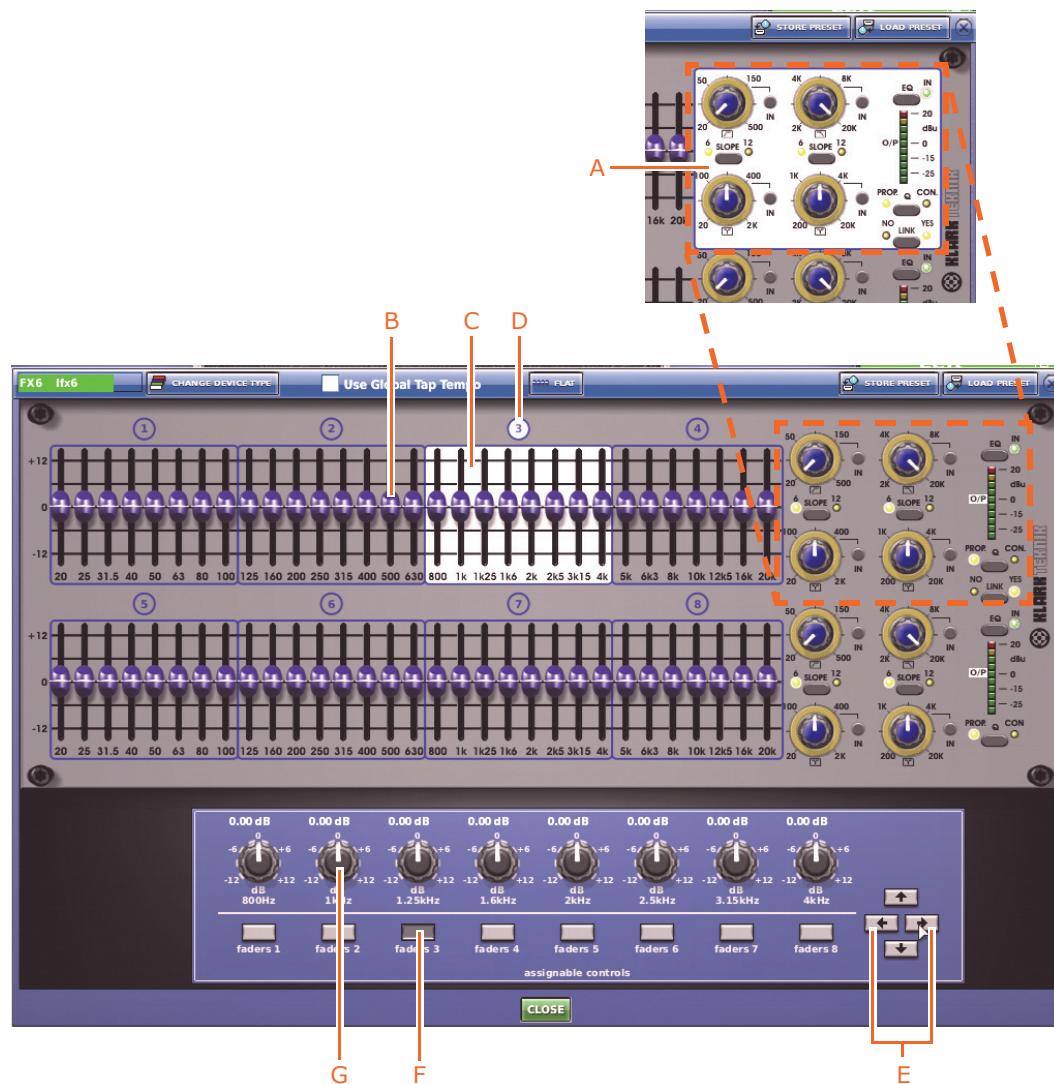


Figure 2: Stereo GEQ navigation.

- A. Shows the GEQ controls section when currently selected. Selection is via the left/right arrow buttons (E).
- B. GEQ fader.
- C. White background indicates current selection.
- D. GEQ fader group identifier. Group selection is via its corresponding fader button (F).
- E. Left and right navigation buttons for scrolling through the fader groups and control sections.
- F. Assignable control buttons for direct access to their associated fader group. When a control section is selected, their assignments change to the buttons of that section.
- G. Control knob. Assigned to a GEQ fader when a fader group is selected or a control knob when a control section is selected.

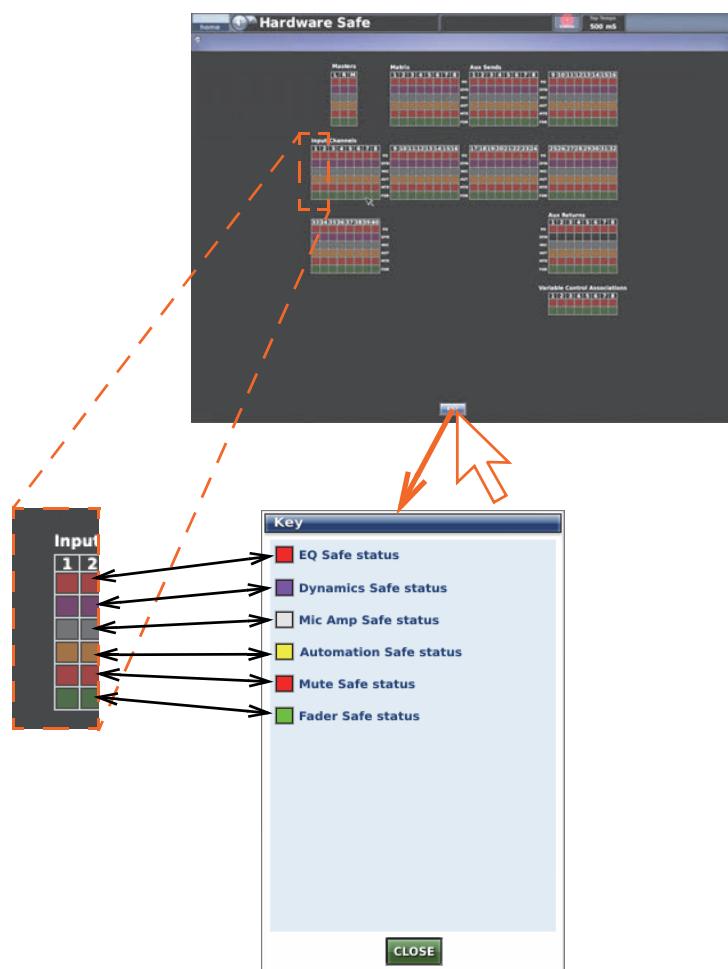
## Hardware Safe screen (PRO Series and XL8)

**Important:**

**Safes are intended for emergency use only and are not to be confused with scope.**

Safes prevent certain controls from being recalled with a scene. The control surface of the PRO Series and XL8 consoles have dedicated channel safes sections where you can activate/deactivate their associated safes. However, a **Hardware Safe** screen, which has been to the GUI, also lets you do this, but in addition provides an overview of the status of all safes on the console.

The **Hardware Safe** screen shows all of the available safes for the every channel and also the VCAs. The screen has a key to help you identify each safe type, as shown in the following diagram.



The **Hardware Safe** screen (the example shown is from a PRO1) showing the key to the channel safe parameters. Click **KEY** to open the **Key** window.

**>> To open the Hardware Safe screen**

At the GUI, choose **home ▶ Automation ▶ Hardware Safe**.

### >> To switch a safe on/off

Do one of the following:

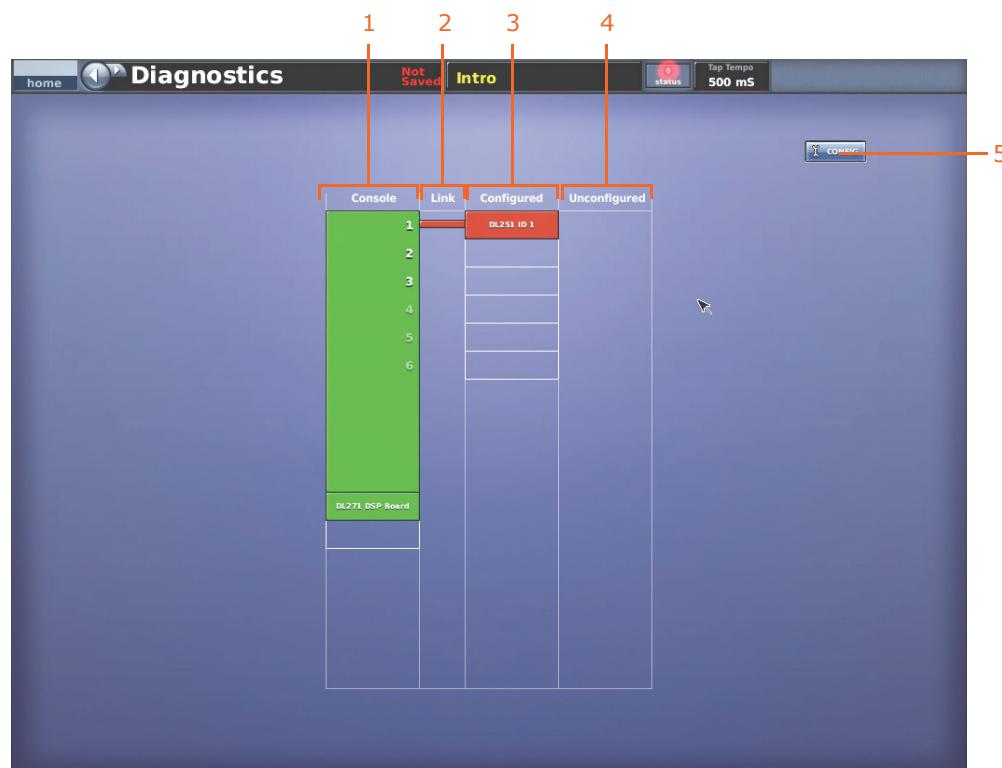
- At the GUI's **Hardware Safe** screen, click the desired safe to switch it on/off. This can be done for any safe.
- Use the appropriate button in the **channel safes** section with the appropriate channel assigned to the control surface.
- At the GUI's **VCA Groups** screen, click the desired safe button.

## Diagnostics screen

The GUI menu of the PRO2 now includes a **Diagnostics** option (highlighted right), which opens the **Diagnostics** screen.

This screen provides an overview of the current health and status of the system by displaying real-time connectivity of the system, the health of connected nodes and whether or not a device is configured.

The **status** LED at the top of the screen, which is constantly displayed while the control centre is switched on, is linked to the status of individual items on the **Diagnostics** screen. If there is a problem, you can click the **status** LED to open the **Diagnostics** screen and see what is causing the error.



An example of the **Diagnostics** screen

<b>Item</b>	<b>Element</b>	<b>Description</b>
<b>1</b>	<b>Console</b> column	This column contains boxes that represent the internal processes of the PRO1 Control Centre, such as the control surface, master controller, DSP, Audio IO and GUI. If any of these develop an error condition the colour of the boxes will change to red. Clicking the <b>DL271 DSP Board</b> box will open a <b>Diagnostics Inspector</b> window (see "About the Diagnostics Inspector window" on page 32).
<b>2</b>	<b>Link</b> column	This column shows the health of the physical connection of each AES50-compatible device and the PRO1 Control Centre. Clicking a link will open a <b>Diagnostics Inspector</b> window (see "About the Diagnostics Inspector window" on page 32).
<b>3</b>	<b>Configured</b> column	This column shows any AES50 devices, such as a IDL251 Audio System I/O, that have been detected as connected to the system and are also configured for the system. Clicking one of these devices will open a <b>Diagnostics Inspector</b> window (see "About the Diagnostics Inspector window" on page 32).
<b>4</b>	<b>Unconfirmed</b> column	This column shows any AES50 devices, such as a IDL251 Audio System I/O, that have been detected as connected to the system, but have not been configured during the patching procedure. Clicking one of these devices will open a <b>Diagnostics Inspector</b> window (see "About the Diagnostics Inspector window" below). To configure a device, see "Setting up the I/O rack devices" on page 39.
<b>5</b>	<b>CONFIG</b> button	Opens the <b>AES50 Device Configuration</b> window (see Figure 9 "Typical AES50 Device Configuration window" on page 39)

The colour of each device, together with its link (if applicable), indicates its current status, as shown in the following table.

<b>State</b>	<b>Description</b>	<b>Unit status</b>	<b>Connection of active link</b>	<b>Connection of inactive link</b>
	Both the unit and link are green	Good	Good	Good
	Unit is green and the link is red	Good	Bad	Not known
	Unit is red and the link is green	Malfunction	Good	Not known
	Both the unit and link are red	Not known	Bad	Bad

There is also an amber condition, which means that the item(s) is in error, but is not contributing to the audio.

### About the Diagnostics Inspector window

Clicking an item in the **Diagnostics** screen will open its **Diagnostics Inspector** window, which provides detailed information, particularly if the item has an error condition.



*Typical PRO Series **Diagnostics Inspector** window with the 'ignore' buttons at the lower right corner*

**The 'ignore' buttons of the Diagnostics Inspector window let you configure the PRO Series to ignore errors on selected/all items. This is an important feature because there may be times when you are quite happy to work with a known error(s), but will want to know when a new error occurs.**

**Note:** **Diagnostic Inspector** windows are primarily for use by Midas service and software engineers. By providing useful information, such as device health and status, they aid fault diagnosis and rectification, and may help solve any problems that may arise. Apart from using the 'ignore' buttons, it is unlikely that operators of the DL251/DL252 Audio System I/O will ever need to use this function.



*An example of DL271 DSP Board **Diagnostics** screen*



*An example of DL251 device **Diagnostics** screen showing an error condition*

#### >> To ignore/unignore error condition

Click the desired item that is in an error condition and then click **IGNORE/UNIGNORE SELECTED**. Its text colour should change to black to show that it is being ignored. Click **IGNORE/UNIGNORE SELECTED** again to highlight the error condition.

To ignore all error conditions, click **IGNORE ALL**. Click **UNIGNORE ALL** to highlight all error conditions.

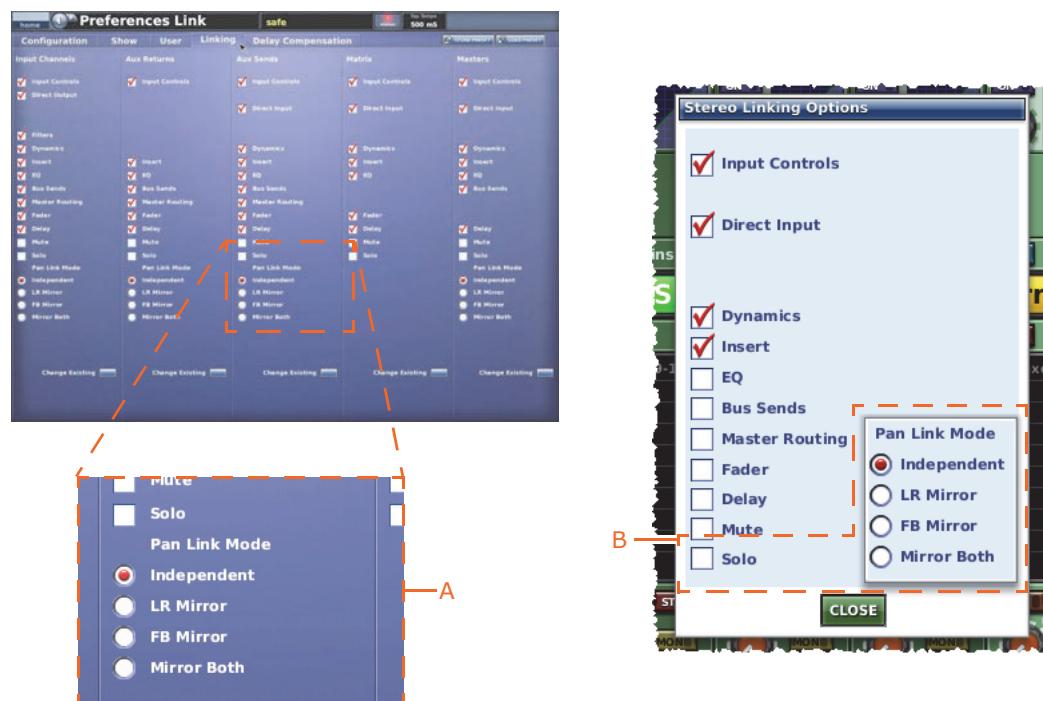
## Select follows solo

There are two new select follow options **Input Select Follows Solo** and **Output Select Follows Solo**, both of which are independent of fader flip. These new solo options replace **Select follows solo** on consoles that already had this option.

For information on their function, see "The new User tab" on page B-35.

## Solo and pan link mode added to stereo linking options

Solo and pan linking mode have been added to the stereo linking options. These options have been added to the new-look **Linking** tab (**Preferences Link** screen) and also the **Stereo Linking Options** window.



The new solo and pan link mode stereo linking options on the **Linking** tab of the GUI menu's **Preferences** option (A) and the **Stereo Linking Options** window (B).

### >> To open the Linking tab

At a GUI screen, choose **home > Preferences > General** and click the title of the **User** tab to open it.

## Pan Link options

The **Pan Link Mode** function has four options, which do the following on stereo linked channels:

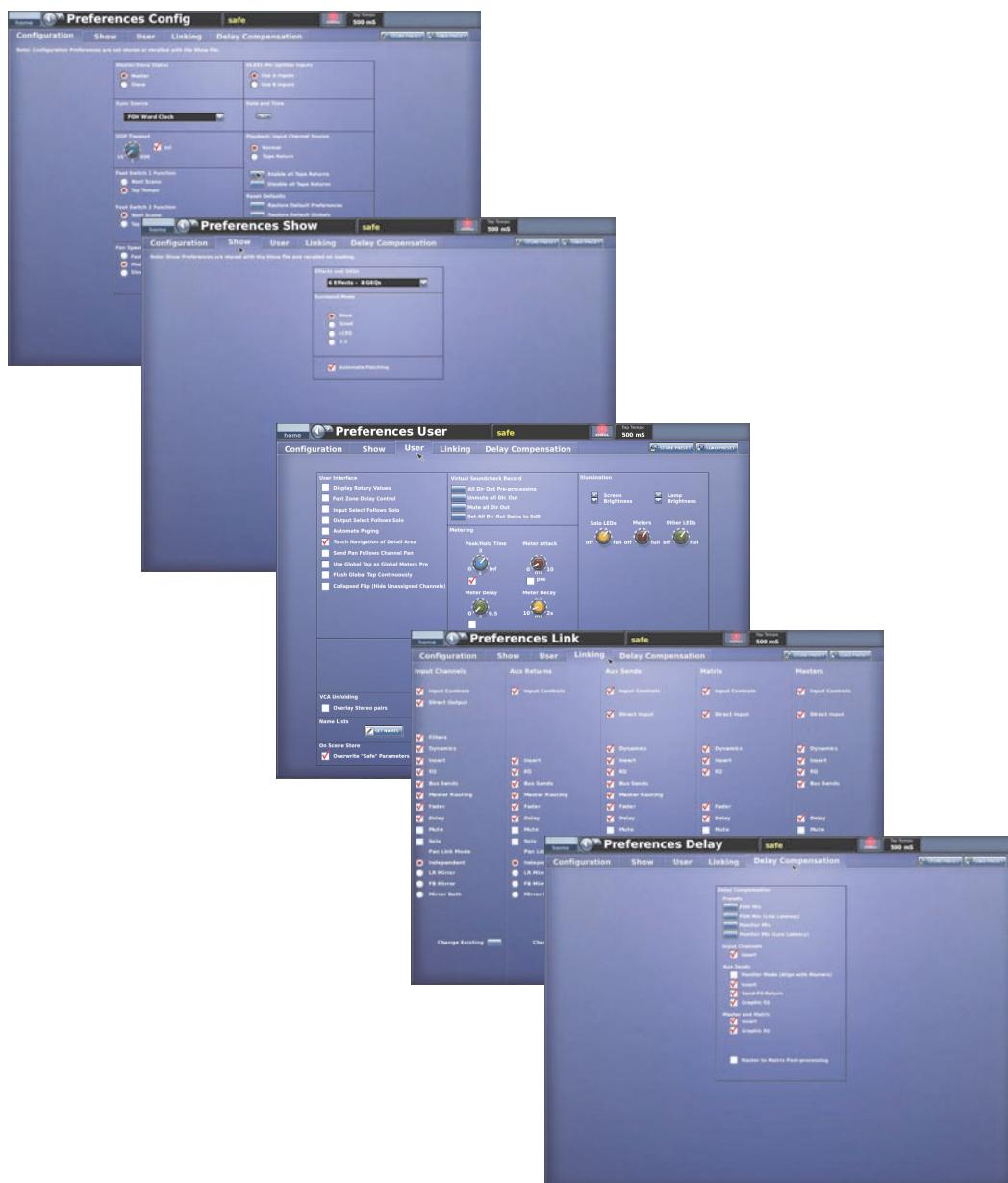
- **Independent** — Pan controls and front-back panning in surround modes are not linked.
- **LR Mirror** — Pan values are mirrored between the left/right channels and, in surround modes, front-back panning is linked.

- **FB Mirror** — Pan values are not linked and, in surround modes, front-back panning is mirrored and left-right panning is linked.
- **Mirror Both** — Pan values are mirrored between the left/right channels and, in surround modes, are also mirrored front-back.

# Preferences screen updated

The new tab-based **Preferences** screen replaces the old one. Also, the linking screen (stereo linking options), which was accessed via the GUI menu's **home ▶ Preferences ▶ Linking** option, is now included on the **Linking** tab.

You can still access the **Preferences** screen is still accessed via the GUI menu's **home ▶ Preferences ▶ General** option and also directly via the **monitors/preferences** button (press twice) in the **screen access** panel (containing trackball).



*Tabs on the new-style **Preferences** screen*

### The new User tab

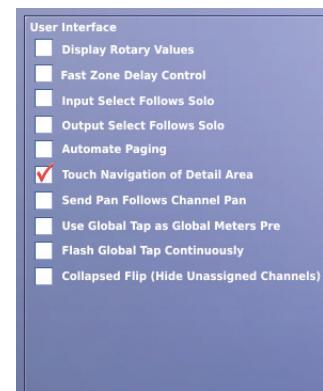
The **User Interface** section of the **User** tab (**Preferences User** screen) lets you set some of the consoles' operating parameters to suit your own preferences.

**Table 1: Overview of alterations to User Interface section**

Option	PRO1	PRO2 and PRO2C	PRO Series (PRO3, PRO6 and PRO9)	XL8
Display Rotary Values	Existing	Existing	Existing	Existing
Fast Zone Delay Control	Existing	Existing	Existing	Existing
Input Select Follows Solo	Existing	Was "Select Follows Solo"	Was "Select Follows Solo"	Was "Select Follows Solo"
Output Select Follows Solo	Existing	Was "Select Follows Solo"	Was "Select Follows Solo"	Was "Select Follows Solo"
Automate Paging	Existing	Existing	Existing	Existing
Touch Navigation of Detail Area	Existing	Existing	New	New
Send Pan Follows Channel Pan	Existing	Existing	New	New
Use Global Tap as Global Meters Pre	Existing	Existing	New	New
Flash Global Tap Continuously	Existing	Existing	New	New
Collapsed Flip (Hide Unassigned Channels)	Existing	Existing	New	New

The following describes the **User Interface** options that are new or have been altered on the consoles.

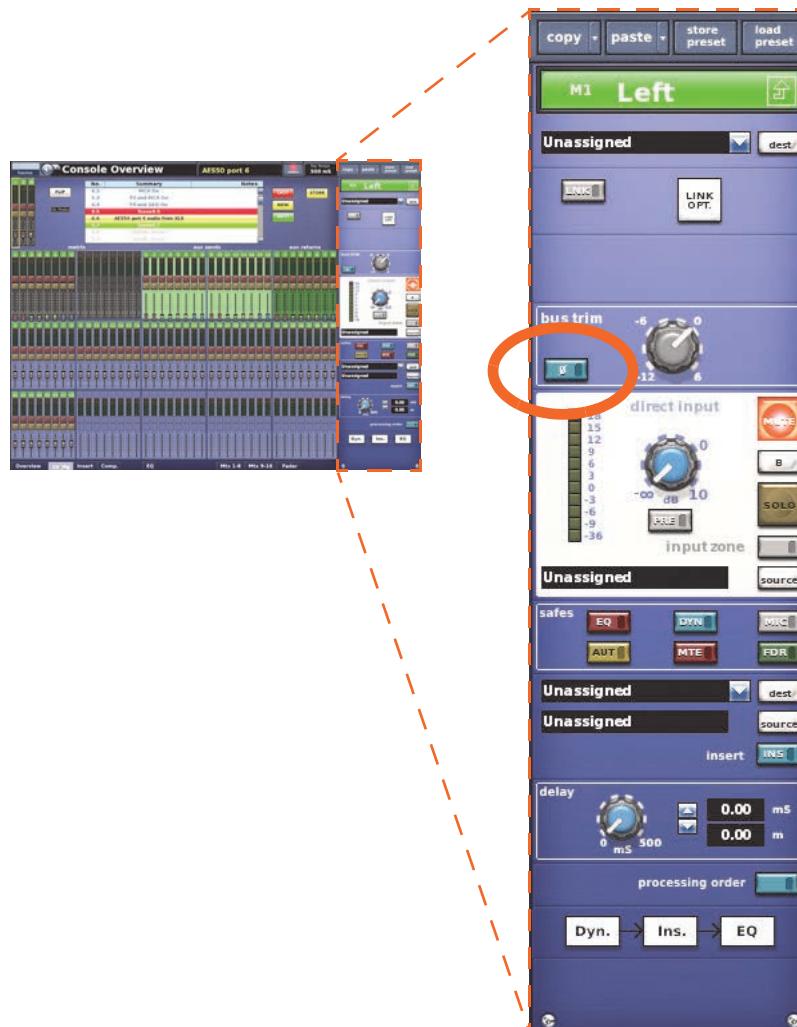
- **Input Select Follows Solo** — when you solo an input channel, such as an aux return, this channel is automatically selected.
- **Output Select Follows Solo** — when you solo an output channel, such as a matrix, this channel is automatically selected.
- **Touch Navigation of Detail Area** — choose this option to navigate the local detail area on the control surface to the GUI detail area when one of its touch-sensitive controls is operated.
- **Send Pan Follows Channel Pan** — if a channel is contributing to a stereo mix bus (for example, stereo aux channel), choosing this option will cause the pan for the contribution to mirror that of the channel pan.
- **Use Global Tap as Global Meters Pre** — choose this option to change the tap function to operate as a global meters pre button.
- **Flash Global Tap Continuously** — choose this option so that the tap button will flash to reflect the current global tap tempo; this value is always displayed (in milliseconds) in the **tap tempo** section at the top of the GUI screen.
- **Collapsed Flip (Hide Unassigned Channels)** — choose this option so that only channels assigned to a mix bus will be visible when flipped to that bus. This affects solo, such that any AFL solo is derived post- the aux send contribution level (and its pan if applicable).



## Polarity reverse switch added to output channels

A phase switch  $\otimes$  has been added to bus trim section (configuration detail area) on the aux send, matrix and master channels of the PRO Series and XL8 consoles.

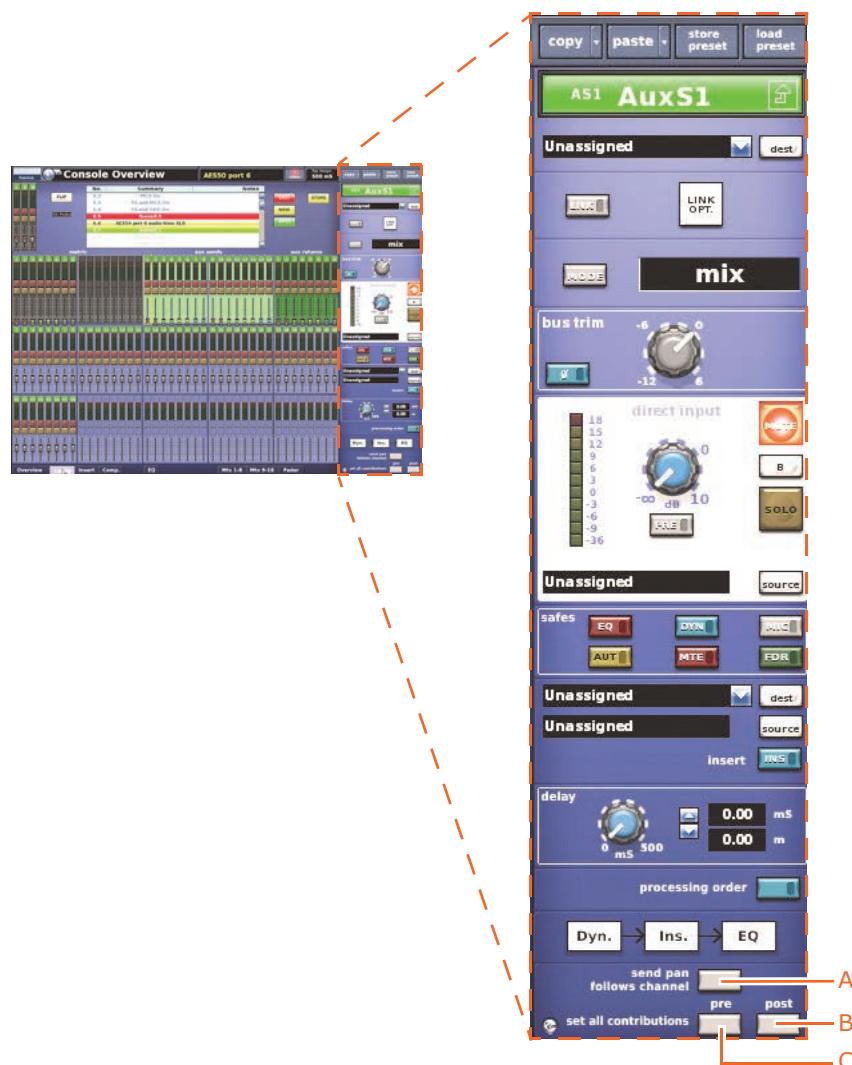
**Important: Down-converting a showfile will lose this setting.**



Polarity reverse switch (highlighted), added to the **bus trim** section. This example shows the **Console Overview** screen of the a PRO6.

## Send pan follows channel pan

The **pre** and **post** buttons have been added to the PRO Series and XL8 consoles (already existing on the PRO1 and PRO2), and a **send pan follows channel** button has been added to the PRO2, PRO Series and XL8 consoles (already existing on the PRO1). These are only available on the auxes and matrices.



This example shows the **send pan follows channel** (A) and **pre** (C) and **post** (B) buttons for **set all contributions**, added to the bottom of the configuration detail (on the GUI) on a PRO6

## Output channel names on GEQ rack

GEQ names and their patching sources have been added to the **Graphic EQs** screen.



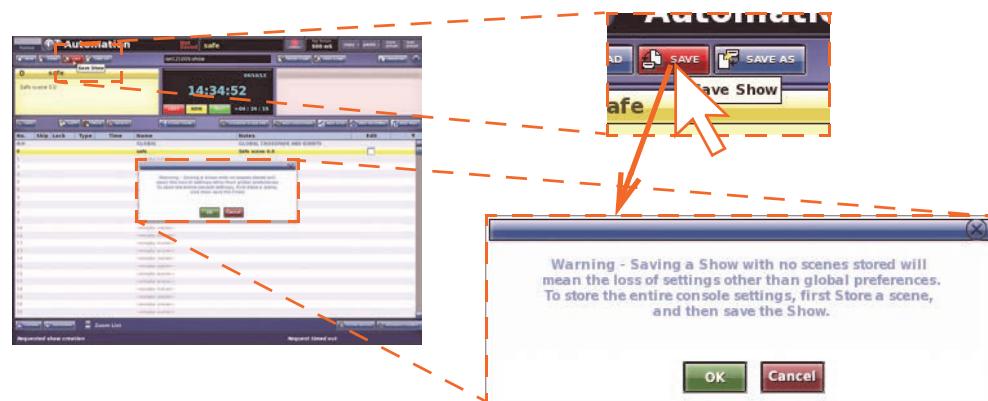
A name and patching source text field (A), whose background colour is user-configurable, has been added to each GEQ on the **Graphic EQs** screen

## New scene and show warning messages in automation

G-II software includes two new warnings in automation. One warning appears when you try and recall the safe scene and the other appears when you try to save a show with no scenes stored.



The 'recalling the safe scene' warning, which appears when you select the 'now' scene either via control surface or GUI



The 'saving a show with no scenes' warning, which appears when you click **SAVE** on the GUI's **Automation** screen

## Show timestamp in Files list

The files listed on the **Files** screen now have a timestamp.



**A. File timestamps**

## Wireless remote control via iPad

The PRO2, PRO Series and XL8 now include an on-board DHCP server, which permits remote control of any MIDAS digital console wirelessly from an Apple iPad, via any standard Ethernet-equipped wireless router.

## New Console Overview screen

The PRO Series has a new **Console Overview** screen, which replaces the **Meters** screen. (This screen already exists on the PRO1 and PRO2. The XL8 has two options for the default mix bay screen, which remain unchanged.)



This example shows the **Console Overview** screen on the PRO6

## Values displayed on GUI and LCD select buttons

Control and fader values have been added to the GUI and the LCD select buttons on the control surface.

### Control knob values displayed on the effects screen

On the PRO Series and XL8 consoles the control values are displayed above the assignable control knobs for the effects.



*This example shows control knob values (A) above the assignable controls of the Stereo GEQ effect on a PRO6*

As, uniquely, the XL8 has LCD select buttons in the assignable controls panel, the values are displayed above these buttons.

### Values displayed on LCD select buttons

On the PRO Series and XL8 consoles, all LCD select buttons with a fader underneath will display the fader's value (dB) at the bottom of the button, but only while its fader is being operated.

The LCD select buttons in assignable controls section of the XL8 now have the value of the assigned parameter displayed at the bottom of the button.



Thank you for reading through this Addendum. We hope you found it useful.

Please feel free to send us your comments. Our contact details and website address  
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